

REMARKS

Summary of the Amendment

Upon entry of the above amendment, claims 1, 4 and 33 will have been amended. Accordingly, claims 1, 4-19 and 22-33 will be pending with claims 1 and 33 being in independent form.

Summary of the Official Action

In the instant Office Action, the Examiner objected to claims 1 and 33 as having minor informalities. The Examiner also rejected claims 1, 4-19, 25 and 33 on the basis of obviousness-type double patenting. Finally, the Examiner rejected claims 1, 4-19 and 22-33 over the art of record. By the present amendment and remarks, Applicant submits that the rejections have been overcome, and respectfully requests reconsideration of the outstanding Office Action and allowance of the present application.

Objection to the specification, is Moot

The Examiner objected to claims 1 and 33 because of asserted minor informalities.

By this amendment, it is believed that the issues have been addressed. Specifically, Applicant has herein amended claims 1 and 33 as suggested by the Examiner.

Accordingly, the objection is believed to be rendered moot and the Examiner is

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requested to withdraw this objection.

Double Patenting Rejections, are moot and/or traversed

Applicant respectfully requests reconsideration of the obviousness-type double patenting rejections of claims 1, 4-19, 25 and 33 in view of the amendment to claims 1 and 33.

Notwithstanding the Office Action assertions, Applicant submits that the instant claims 1, 4-19 and 33 recite a combination of features which are not disclosed or suggested by claims 1-9 of US patent 5,788,817 to BENTELE et al. in view of EP 0 752 495. Applicant also submits that the instant claim 25 recites a combination of features which are not disclosed or suggested by claims 1-9 of US patent 5,788,817 to BENTELE et al. in view of EP 0 752 495 and further in view of SMOOK (*Handbook for Pulp & Paper Technologists, 2nd Ed.*).

Applicant notes that claims 1-9 of BENTELE recite a third roll which forms an additional nip with the backing roll of a first nip that includes first and second support elements. On the other hand, the claims of the instant application recite, among other things, that *the adjustment of the pressure differential provides cross-section corrections in the roll nip*, as recited in amended claims 1 and 33. Applicant notes that claims 1-9 of BENTELE contain no language disclosing or suggesting with regard to adjusting the pressure differential

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in the first and second support elements in order to *provide cross-section corrections in the roll nip*, i.e., adjusting the pressure differential in the first and second support elements 6 and 11 in order to provide cross-section corrections in the roll nip formed by the backing roll 8 and the third roll 14. To the contrary, the claims lack any such disclosure or suggestion.

Applicant acknowledges that EP 0 752 495 apparently discloses a nip that is formed between first and second rolls 10 and 20 which utilize first and second support elements 13 and 23. However, Applicant submits that this document lacks any disclosure or suggestion with regard to, among other things, the combination of an additional roll nip formed by a third roll and one of the first and second rolls 10 and 20, much less, that *the adjustment of the pressure differential provides cross-section corrections in the roll nip*, as recited in amended claims 1 and 33. Applicant emphasizes that it is not apparent from the figures of EP 0 752 495 that an additional roll nip formed by a third roll and one of the first and second rolls 10 and 20 is even contemplated. Moreover, the Examiner has identified no disclosure or suggestion in EP 0 752 495 with regard to adjusting the pressure differential in the first and second support elements in order to *provide cross-section corrections in the roll nip*, i.e., adjusting the pressure differential in the first and second support elements 13 and 23 in order to provide cross-section corrections in another roll nip formed by one of the rolls 10 or 20 and a third roll.

Finally, Applicant acknowledges that SMOOK describes the pressure distribution in

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a press nip and which indicates that the pressure is great in the center of the roll and decreases towards the roll ends. However, Applicant submits that this document lacks any disclosure or suggestion with regard to, among other things, the combination of a first roll nip formed by first and second rolls and an additional roll nip formed by a third roll and one of the first and second rolls, much less, that *the adjustment of the pressure differential provides cross-section corrections in the roll nip*, as recited in amended claims 1 and 33. Moreover, the Examiner has identified no disclosure or suggestion in SMOOK with regard to adjusting the pressure differential in first and second support elements of the first and second rolls in order to *provide cross-section corrections in the roll nip*, i.e., adjusting the pressure differential in the first and second support elements and in order to provide cross-section corrections in another roll nip formed by one of the first and second rolls and a third roll.

Accordingly, it is clear that the asserted combination of teachings fail to disclose or suggest the combination of features recited in the above-noted claims. It is also clear that the instant claims and those of BENTELE relate to distinct subject matter.

Because each of the applied documents fails to disclose or suggest at least the above-noted features of the instant invention, Applicant submits that no proper modification or combination of these documents can render unpatentable the combination of features recited in at least claims 1 and 33.

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Further, even assuming, *arguendo*, that it would have been obvious to combine the teachings of these documents, (which Applicant submits it would not be), Applicant notes that such a combination would nevertheless fail to result in a device or method that includes the particular combination of features recited in amended claims 1 and 33. Moreover, Applicant submits that there is no motivation to modify any of these documents in a manner which would render obvious Applicant's invention.

Thus, Applicant respectfully disagrees with the assertion and conclusion of obviousness on the basis that the claims of BENTELE as modified by the disclosure of EP 0 752 495 and SMOOK.

Further, Applicant submits dependent claims 4-19 are allowable because no proper combination of claims 1-9 of BENTELE in view of EP '495, and that dependent claim 25 is also allowable because no proper combination of claims 1-9 of BENTELE in view of EP '495 and SMOOK, teaches or suggests, *inter alia*: the fibrous material web comprising at least one of a paper web and a cardboard web, as recited in claim 4; a line force differential between the shoe press unit and the counter roll being changeable with the pressure differential, as recited in claim 5; a cross-section of the pressure differential being produced lateral to the web travel direction, the cross-section of the pressure differential being changeable so different pressure differentials are adjustable over the width, as recited in claim 6; the line force in the roll nip changeable by way of the pressure differential, as recited

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in claim 7; line forces that are at least essentially even being adjusted in the roll nip by way of the variable pressure differential, as recited in claim 8; one of the pressure differential and the line force differential being continuously changeable in areas, as recited in claim 9; the internal pressure produced by the at least one first support element being changeable to change the pressure differential, as recited in claim 10; the internal pressure produced by the at least one second support element being changeable to change the pressure differential, as recited in claim 11; both the internal pressure produced by the at least one first support element and the internal pressure produced by the at least one second support element being changeable to change the pressure differential, as recited in claim 12; the at least one first support element and the at least one second support element being connected to the common pressure fluid line, the adjustment device comprising the adjustable pressure reduction device provided in at least one of the pressure fluid connection between the common pressure fluid line and the at least one first support element, and the pressure fluid connection between the common pressure fluid line and the at least one second support element, the pressure differential being changeable by the adjustable pressure reduction device, as recited in claim 13; at least one of the at least one first support element and the at least one second support element being connected to the common pressure fluid line one of individually, in groups, and all together, as recited in claim 14; the adjustable pressure reduction device being provided between at least one of the groups of the at least one second support element and

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the common pressure fluid line, thereby reducing the pressure of the at least one second support element connected to the common pressure fluid line in groups, as recited in claim 15; the adjustable pressure reduction device being provided between at least one individual at least one second support element and the common pressure fluid line, thereby reducing the pressure of the at least one second support element individually connected to the common pressure fluid line, as recited in claim 16; the adjustable pressure reduction device including at least one variably adjustable valve, as recited in claim 17; at least one of the pressure differential and the line force differential being externally adjustable, as recited in claim 18; at least one of the pressure differential and the line force differential being adjustable by one of mechanically, hydraulically, pneumatically, manually, by remote control, at the site, from a control position, and in a process-guided manner, as recited in claim 19; and the third roll, the fourth roll, and the counter roll being cambered, as recited in claim 25.

Accordingly, Applicant requests that the Examiner reconsider and withdraw the Double Patenting rejections of the above-noted claims.

Traversal of Rejections Under 35 U.S.C. § 103(a)

Applicant traverses the rejection of claims 1, 4-19 and 33 under 35 U.S.C. § 103(a) as being unpatentable over BENTELE in view of EP 0 752 495.

Applicant also traverses the rejection of claim 25 under 35 U.S.C. § 103(a) as being

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unpatentable over BENTELE in view of EP 0 752 495 and further in view of SMOOK.

Applicant additionally also traverses the rejection of claims 1, 4-19 and 22-33 under 35 U.S.C. § 103(a) as being unpatentable over DE 195 20 443 in view of EP 0 752 495.

Applicant further additionally also traverses the rejection of claim 25 under 35 U.S.C. § 103(a) as being unpatentable over DE 195 20 443 in view of EP 0 752 495 and further in view of SMOOK.

The Examiner acknowledges that each of BENTELE and DE '442 lacks, among other things, a pressure fluid line arranged to generate internal pressures by the first and second support elements, an adjustment device arranged to change a pressure differential between the internal pressures generated by the first and second support elements, that the first and second support elements are pressure fluid-actuated, that the first and second support elements are connected to a common pressure fluid line, and non-equal pressure-active surfaces. However, the Examiner asserted that EP '495 discloses these features and that it would have been obvious to modify BENTELE or DE '442 to include these features.

The Examiner also acknowledges that each of BENTELE and DE '442 in combination with EP 0 752 495 lacks, among other things, an adjustment device that is structured and arranged to adjust the pressure differential as at least one of a function of a line force in the roll nip by predeterminable characteristic curves and a function of line force correction procedures for the roll nip, wherein the line force correction procedures may be at least one

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of input by way of an electronic control and produced by way of corresponding signals of a process guidance system. However, the Examiner asserted that the control devices of BENTELE or DE '442 as modified by EP '495 "would be structurally capable of performing the intended pressure changes as a function of either concept, as these procedures for adjusting pressure are conventional in the art."

The Examiner also acknowledges that each of BENTELE and DE '442 in combination with EP 0 752 495 lacks, among other things, cambered additional rolls. However, the Examiner asserted that this is taught by SMOOK and that it would have been obvious to modify BENTELE or DE '442 as modified by EP 0 752 495 to include this feature.

Notwithstanding the Office Action assertions as to what each of these documents disclose or suggest, Applicant submits that no proper modification or combination of the above-noted documents discloses or suggests: inter alia, an adjustment device arranged to change a pressure differential between the internal pressures generated by the at least one first support element acting on the flexible press belt of the shoe press unit, and the at least one second support element acting on the roll jacket of the counter roll, said adjustment device being structured and arranged to adjust the pressure differential as at least one of a function of a line force in the roll nip by predeterminable characteristic curves, and a function of line force correction procedures for the roll nip, *wherein the line force correction procedures are at least one of input by way of an electronic control and produced by way of*

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corresponding signals of a process guidance system, and wherein adjustment of the pressure differential provides cross-section corrections in the roll nip, as recited in amended independent claim 1; and inter alia, adjusting a pressure differential between internal pressures generated by the at least one first support element acting on the flexible press belt, and the at least one second support element acting on the roll jacket, the pressure differential adjusted by adjusting of the pressure of the fluid supplied to the at least one first support element and the at least one second support element, wherein the pressure differential is adjusted as at least one of a function of a line force in the roll nip by predeterminable characteristic curves and a function of line force correction procedures for the roll nip, wherein the line force correction procedures are at least one of input by way of an electronic control and produced by way of corresponding signals of a process guidance system, and wherein the adjusting of the pressure differential provides cross-section corrections in the roll nip, as recited in amended independent claim 33.

Applicant acknowledges that each of BENTELE and DE '443 (the German Priority Document of BENTELE) discloses a third roll 14 which forms an additional nip with the backing roll 8 of a first nip that includes first and second support elements 6 and 11. However, it is clear that each of these documents lacks any disclosure or suggestion with regard to *the line force correction procedures being at least one of input by way of an electronic control and produced by way of corresponding signals of a process guidance*

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system. Indeed, the Examiner has acknowledged that no such disclosure is contained in these documents.

It is also clear that each of BENTELE and DE '443 lack any disclosure or suggestion with regard to *the adjustment of the pressure differential providing cross-section corrections in the roll nip*. To the contrary, BENTELE merely indicates, as col. 5, lines 49-50, that the regulating the pressure in support elements 6 and 11 “promotes the formation of a uniform second press nip”. Such language is hardly suggestive of adjusting the pressure differential in the first and second support elements in order to *provide cross-section corrections in the roll nip*. Accordingly, Applicant respectfully submits that each of these documents is entirely silent with regard to adjusting the pressure differential in the first and second support elements 6 and 11 in order to provide cross-section corrections in the roll nip formed by the backing roll 8 and the third roll 14.

As explained above, Applicant does not dispute that EP 0 752 495 apparently discloses a nip that is formed between first and second rolls 10 and 20 which utilize first and second support elements 13 and 23. However, Applicant submits that this document lacks any disclosure or suggestion with regard to, among other things, the combination of an additional roll nip formed by a third roll and one of the first and second rolls 10 and 20, much less, that *the adjustment of the pressure differential provides cross-section corrections in the roll nip*, as recited in amended claims 1 and 33. Applicant emphasizes that it is not apparent

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from the figures of EP 0 752 495 that an additional roll nip formed by a third roll and one of the first and second rolls 10 and 20 is even contemplated. Moreover, the Examiner has identified no disclosure or suggestion in EP 0 752 495 with regard to adjusting the pressure differential in the first and second support elements in order to *provide cross-section corrections in the roll nip*, i.e., adjusting the pressure differential in the first and second support elements 13 and 23 in order to provide cross-section corrections in another roll nip formed by one of the rolls 10 or 20 and a third roll.

Applicant also submits that EP 0 752 495 lacks any disclosure or suggestion with regard to *the line force correction procedures being at least one of input by way of an electronic control and produced by way of corresponding signals of a process guidance system*. Indeed, the Examiner has acknowledged that no such disclosure is contained in this document.

Finally, Applicant acknowledges that SMOOK describes the pressure distribution in a press nip and which indicates that the pressure is great in the center of the roll and decreases towards the roll ends. However, Applicant submits that this document lacks any disclosure or suggestion with regard to, among other things, the combination of a first roll nip formed by first and second rolls and an additional roll nip formed by a third roll and one of the first and second rolls, much less, that *the adjustment of the pressure differential provides cross-section corrections in the roll nip*, as recited in amended claims 1 and 33.

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Moreover, the Examiner has identified no disclosure or suggestion in SMOOK with regard to adjusting the pressure differential in first and second support elements of the first and second rolls in order to *provide cross-section corrections in the roll nip*, i.e., adjusting the pressure differential in the first and second support elements and in order to provide cross-section corrections in another roll nip formed by one of the first and second rolls and a third roll.

It is also apparent that SMOOK clearly lacks any disclosure or suggestion with regard to *the line force correction procedures being at least one of input by way of an electronic control and produced by way of corresponding signals of a process guidance system*

Applicant reminds that the Examiner that, in *In re Mills*, 16 USPQ2d 1430 (Fed. Cir. 1990), the Federal Circuit held that the Examiner must afford patentable weight to functional limitations that are non-obvious over the prior art. Accordingly, Applicant submits that the Examiner cannot simply ignore functional features. Further, Applicant notes that, since some the pending claims recite structural features that, by virtue of their particular design and arrangement, can also provide a specified function, these feature cannot be ignored by the Examiner as merely functional.

Because each of the applied documents fails to disclose or suggest at least the above-noted features of the instant invention, Applicant submits that no proper modification or combination of these documents can render unpatentable the combination of features recited

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in at least claims 1 and 33.

Further, even assuming, *arguendo*, that it would have been obvious to combine the teachings of these documents, (which Applicant submits it would not be), Applicant notes that such a combination would nevertheless fail to result in a device or method that includes the particular combination of features recited in amended claims 1 and 33. Moreover, Applicant submits that there is no motivation to modify any of these documents in a manner which would render obvious Applicant's invention.

Applicant reminds the Examiner of the guidelines identified in M.P.E.P section 2141 which state that "[i]n determining the propriety of the Patent Office case for obviousness in the first instance, it is necessary to ascertain whether or not the reference teachings would appear to be sufficient for one of ordinary skill in the relevant art having the reference before him to make the proposed substitution, combination, or other modification." *In re Linter*, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972).

As this section clearly indicates, "[o]bviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992)."

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Moreover, it has been legally established that “[t]he mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990) Although a prior art device "may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so." 916 F.2d at 682, 16 USPQ2d at 1432.). See also *In re Fritch*, 972 F.2d 1260, 23 USPQ2d 1780 (Fed. Cir. 1992) (flexible landscape edging device which is conformable to a ground surface of varying slope not suggested by combination of prior art references).

Additionally, it has been held that “[a] statement that modifications of the prior art to meet the claimed invention would have been ‘well within the ordinary skill of the art at the time the claimed invention was made’ because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a prima facie case of obviousness without some objective reason to combine the teachings of the references. *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993).”

Thus, Applicant submits that there is no motivation or rationale disclosed or suggested in the art to modify the applied reference in the manner asserted by the Examiner. Nor does the Examiner’s opinion provide a proper basis for these features or for the motivation to modify this document, in the manner suggested by the Examiner. Therefore, Applicant

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submits that the invention as recited in at least independent claims 1 and 33 is not rendered obvious by any reasonable inspection and interpretation of the disclosure of the applied references.

Further, Applicant submits that claims 4-19 and 22-32 are allowable at least for the reason that these claims depend from an allowable base claim and because these claims recite additional features that further define the present invention. In particular, Applicant submits that no proper combination of BENTELE or DE '443 in view of EP 0 752 495 and with regard to claim 25, further in view of SMOOK, discloses or suggests, in combination: the fibrous material web comprising at least one of a paper web and a cardboard web, as recited in claim 4; a line force differential between the shoe press unit and the counter roll being changeable with the pressure differential, as recited in claim 5; a cross-section of the pressure differential being produced lateral to the web travel direction, the cross-section of the pressure differential being changeable so different pressure differentials are adjustable over the width, as recited in claim 6; the line force in the roll nip changeable by way of the pressure differential, as recited in claim 7; line forces that are at least essentially even being adjusted in the roll nip by way of the variable pressure differential, as recited in claim 8; one of the pressure differential and the line force differential being continuously changeable in areas, as recited in claim 9; the internal pressure produced by the at least one first support element being changeable to change the pressure differential, as recited in claim 10; the

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internal pressure produced by the at least one second support element being changeable to change the pressure differential, as recited in claim 11; both the internal pressure produced by the at least one first support element and the internal pressure produced by the at least one second support element being changeable to change the pressure differential, as recited in claim 12; the at least one first support element and the at least one second support element being connected to the common pressure fluid line, the adjustment device comprising the adjustable pressure reduction device provided in at least one of the pressure fluid connection between the common pressure fluid line and the at least one first support element, and the pressure fluid connection between the common pressure fluid line and the at least one second support element, the pressure differential being changeable by the adjustable pressure reduction device, as recited in claim 13; at least one of the at least one first support element and the at least one second support element being connected to the common pressure fluid line one of individually, in groups, and all together, as recited in claim 14; the adjustable pressure reduction device being provided between at least one of the groups of the at least one second support element and the common pressure fluid line, thereby reducing the pressure of the at least one second support element connected to the common pressure fluid line in groups, as recited in claim 15; the adjustable pressure reduction device being provided between at least one individual at least one second support element and the common pressure fluid line, thereby reducing the pressure of the at least one second support element

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individually connected to the common pressure fluid line, as recited in claim 16; the adjustable pressure reduction device including at least one variably adjustable valve, as recited in claim 17; at least one of the pressure differential and the line force differential being externally adjustable, as recited in claim 18; at least one of the pressure differential and the line force differential being adjustable by one of mechanically, hydraulically, pneumatically, manually, by remote control, at the site, from a control position, and in a process-guided manner, as recited in claim 19; the pressure differential being adjustable by way of a regulating system that includes at least one closed regulation loop, as recited in claim 22; a line force in a second roll nip formed between the third roll and a fourth roll being changeable by way of the pressure differential, as recited in claim 23; at least one of the counter roll and the third roll being cambered, as recited in claim 24; the third roll, the fourth roll, and the counter roll being cambered, as recited in claim 25; the shoe press unit comprising a shoe press roll and the flexible press belt, the flexible press belt comprising a flexible press jacket, as recited in claim 26; the shoe press unit disposed above the counter roll, as recited in claim 27; the ends of the roll jacket of the counter roll being supported on the relevant carrier so that the roll jacket cannot move radially, as recited in claim 28; an action plane of the at least one second support element of the counter roll inclined slightly in relation to a second action plane of the at least one first support element of the shoe press unit, wherein an inclination angle lies in a range from about 2° to 15°, as recited in claim 29;

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the inclination angle lies in a range from about 4° to 8°, as recited in claim 30; an action plane of the at least one second support element of the counter roll coinciding, at least essentially, with a second action plane of the at least one first support element of the shoe press unit, as recited in claim 31; and comprising pressure-active surfaces of the at least one second support element being not equal to second pressure-active surfaces of the at least one first support element of the shoe press unit, as recited in claim 32.

Accordingly, Applicant requests that the Examiner reconsider and withdraw the rejections of these claims under 35 U.S.C. § 103(a) and indicate that these claims are allowable.

CONCLUSION

In view of the foregoing, it is submitted that none of the references of record, either taken alone or in any proper combination thereof, anticipate or render obvious the Applicant's invention, as recited in each of the pending claims. The applied references of record have been discussed and distinguished, while significant claimed features of the present invention have been pointed out.

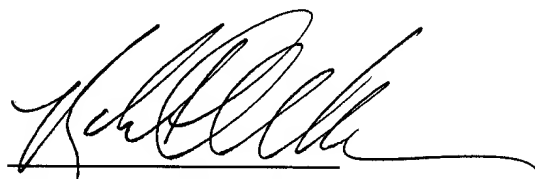
Accordingly, reconsideration of the outstanding Office Action and allowance of the present application and all the claims therein are respectfully requested and now believed to be appropriate.

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The Commissioner is hereby authorized to refund excess payments and charge any additional fee necessary to have this paper entered to Deposit Account No. 19-0089.

Should there be any questions, the Examiner is invited to contact the undersigned at the below listed number.

Respectfully submitted,
H. PRINZING et al.


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